

REMARKS

The Examiner objected to claim 31 as not further limiting a claim from which it depends. This claim recite the method of a preceding claim (claim 30) wherein the previously recited method of operating a spectrometer comprises a method of operating a time of flight mass spectrometer. Thus, this claim clearly further limits the method of claim 30 by limiting not just a step, but rather the entire method to a method of operating not just any spectrometer, but rather a method of operating a time of flight mass spectrometer. The Examiner asks “What are the method steps associated with the recited ‘method of operating a time of flight mass spectrometer’?” They are:

“providing at least two different types of ion sources, first coupling an ion stream from a first one of said ion sources of a first type into the time-of-flight mass spectrometer, next coupling an ion stream from a second one of said ion sources of a second type different from the first type into the time-of-flight mass spectrometer, next coupling an ion stream from the second one of said ion sources into the time-of-flight mass spectrometer, next coupling an ion stream from the first one of said ion sources into the time-of-flight mass spectrometer, developing mass spectra from the coupling of ion streams from said second one of said ion sources into the time-of-flight mass spectrometer while coupling an ion stream from said first one of said ion sources into the time-of-flight mass spectrometer and developing mass spectra from the coupling of ion streams from said first one of said ion sources into the time-of-flight mass spectrometer while coupling an ion stream from said second one of said ion sources into the time-of-flight mass spectrometer,”

all as recited in claim 31. This objection to claim 31 is thus overcome.

The Examiner objected to the drawings for their not showing the matrix-assisted laser desorption ionization (hereinafter MALDI) apparatus claimed in claims 14, 15, 28 and 29. The Examiner also rejected claims 14, 15, 28 and 29 under 35 U. S. C. § 112 for the failure of the specification to describe the apparatus claimed in these claims in sufficient detail to enable a person of ordinary skill in the art to which they pertain to make and use it. The apparatus in question is a MALDI ion source. It is one of a number of known apparatus for producing a stream of ions. At the highly diagrammatic level at which they are illustrated in the drawings of this application, the different types of ion sources, electrospray, inductively coupled plasma, electron-impact, MALDI, and so on, don’t look different from each other. All are known to people of ordinary skill in the art to which this invention pertains. An Internet search of .43 second duration yielded 11,299 hits on the inquiry “maldi ion source.” Applicants refer the Examiner to the first two of these,

<http://www.apmaldi.com/Products/Bruker.htm> and <http://www.chem.agilent.com/Scripts/PDS.asp?lPage=6676> as examples of what kinds of MALDI apparatus are available. In both, the MALDI sources are pictured as boxes, essentially the way all of the ion sources are illustrated (again, at a highly diagrammatic level) in the drawings of this patent application.

The law is clear that patent documents need not include subject matter that is known in the field of the invention and is in the prior art, for patents are written for persons experienced in the field of the invention. See Vivid Technologies, Inc. v. American Science and Engineering, Inc., 200 F.3d 795, 804, 53 U.S.P.Q. 2D (BNA) 1289, 1295 (Fed. Cir. 1999) (“patents are written by and for skilled artisans”). To hold otherwise would require every patent document to include a technical treatise for the unskilled reader. Although an accommodation to the “common experience” of lay persons may be feasible, it is an unnecessary burden for inventors and has long been rejected as a requirement of patent disclosures. See Atmel Corp., 198 F.3d at 1382, 53 U.S.P.Q.2D (BNA) at 1230 (Fed. Cir. 1999) (“The specification would be of enormous and unnecessary length if one had to literally reinvent and describe the wheel.”); W. L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1556, 220 U.S.P.Q. (BNA) 303, 315 (Fed. Cir. 1983) (“Patents are written to enable those skilled in the art to practice the invention, not the public.”).

S3 Incorporated v. nVidia Corporation, 259 F.3d 1364, 59 U.S.P.Q.2D (BNA) 1745 (Fed. Cir. 2001).

The Examiner rejected claims 2 and 16 under 35 U. S. C. § 102. The Examiner relied upon Naito U. S. Patent 3,886,357 (hereinafter Naito) to support this rejection. Claims 2 and 16 have been amended to recite “apparatus for coupling at least two different ion streams simultaneously to the spectrometer from at least two different types of ion sources” (claim 2), and “at least two different types of ion sources, and coupling ion streams simultaneously from the at least two different types of ion sources to the spectrometer” (claim 16). Naito discloses ion sources 1 and 2. Naito nowhere suggests that his ion sources 1 and 2 are different types of ion sources. Accordingly, the 35 U. S. C. § 102 rejection of claims 2 and 16 is overcome. Claims 2 and 16 are entitled to further favorable consideration, at least on this basis.

The Examiner rejected claims 1, 2, 6, 14, 16, 20, 28, 30, 31, 33 and 36 under 35 U. S. C. § 102. The Examiner relied upon Farnsworth U. S. Patent 6,777,670 (hereinafter Farnsworth) to support this rejection. Claims 1, 2, 16 and 30, from which the remaining claims depend, either directly or indirectly, have been amended to recite “a first ionization

source of a first type for creating ions [and] a second ionization source of a second type different from the first type for creating ions” (claim 1), “apparatus for coupling at least two different ion streams simultaneously to the spectrometer from at least two different types of ion sources” (claim 2), “at least two different types of ion sources, and coupling ion streams simultaneously from the at least two different types of ion sources to the spectrometer” (claim 16), and “providing at least two different types of ion sources, first coupling an ion stream from a first one of said ion sources of a first type into the spectrometer, [and] next coupling an ion stream from a second one of said ion sources of a second type different from the first type into the spectrometer” (claim 30). Farnsworth discloses only electrospray ionization sources. Farnsworth nowhere suggests using different types of ion sources in his spectrometer. Accordingly, the 35 U. S. C. § 102 rejection of claims 1, 2, 16 and 30, and claims 6, 14, 20, 28, 31, 33 and 36, which depend from respective ones of claims 2, 16 and 30, is overcome. Claims 1, 2, 6, 14, 16, 20, 28, 30, 31, 33 and 36 are entitled to further favorable consideration, at least on this basis.

The Examiner rejected claims 3, 4, 15, 17, 18 and 29 under 35 U. S. C. § 103. The Examiner relied upon Farnsworth to support this rejection. As noted above, claims 2 and 16, from which respective ones of claims 3, 4, 15, 17, 18 and 29 depend, have been amended to recite “apparatus for coupling at least two different ion streams simultaneously to the spectrometer from at least two different types of ion sources” (claim 2), and “at least two different types of ion sources, and coupling ion streams simultaneously from the at least two different types of ion sources to the spectrometer” (claim 16). Farnsworth discloses only electrospray ionization sources. Farnsworth nowhere suggests using different types of ion sources in his spectrometer. Accordingly, the 35 U. S. C. § 103 rejection of claims 3, 4, 15, 17, 18 and 29 is overcome. Claims 3, 4, 15, 17, 18 and 29 are entitled to further favorable consideration, at least on this basis.

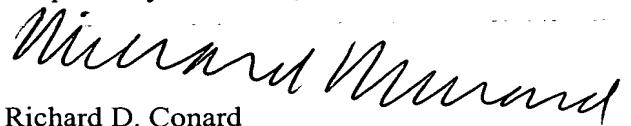
The Examiner rejected claims 5, 8-13, 19, 21-27, 34 and 37 under 35 U. S. C. § 103. The Examiner relied upon the combination of Farnsworth and Whitehouse U. S. Patent 6,040,575 (hereinafter Whitehouse) to support this rejection. As noted above, claims 2, 16 and 30, from which respective ones of claims 5, 8-13, 19, 21-27, 34 and 37 depend, have been amended to recite “apparatus for coupling at least two different ion streams simultaneously to the spectrometer from at least two different types of ion sources” (claim 2), “at least two different types of ion sources, and coupling ion streams simultaneously from the at least two different types of ion sources to the spectrometer” (claim 16), and “providing at least two different types of ion sources, first coupling an ion stream from a first one of said

ion sources of a first type into the spectrometer, [and] next coupling an ion stream from a second one of said ion sources of a second type different from the first type into the spectrometer” (claim 30). Again, Farnsworth discloses only electrospray ionization sources. Farnsworth nowhere suggests using different types of ion sources in his spectrometer. Whitehouse discloses several types of ion sources, including electron ionization (EI), chemical ionization (CI), laser desorption (LD), matrix assisted laser desorption ionization (MALDI), photon and multiphoton ionization, thermospray (TS), electrospray (ES), atmospheric pressure chemical ionization (APCI), pyrolysis MS, inductively coupled plasma (ICP), fast atom bombardment (FAB), field desorption (FD), secondary ion mass spectrometry (SIMS) and glow discharge. However, Whitehouse neither discloses nor suggests “apparatus for coupling at least two different ion streams simultaneously to the spectrometer from at least two different types of ion sources” (claim 2), “at least two different types of ion sources, and coupling ion streams simultaneously from the at least two different types of ion sources to the spectrometer” (claim 16), and “providing at least two different types of ion sources, first coupling an ion stream from a first one of said ion sources of a first type into the spectrometer, [and] next coupling an ion stream from a second one of said ion sources of a second type different from the first type into the spectrometer” (claim 30). Accordingly, the 35 U. S. C. § 103 rejection of claims 5, 8-13, 19, 21-27, 34 and 37 is overcome. Claims 5, 8-13, 19, 21-27, 34 and 37 are entitled to further favorable consideration, at least on this basis.

Claims 1-31, 33, 34, 36 and 37 are thus entitled to further favorable consideration, culminating in allowance, for at least the reasons set forth above.

Applicants hereby petition for a three month extension of the term for response to the April 13, 2006 official action to October 13, 2006. Please charge the petition fee, as well as any other fees that might be due to constitute this a timely response to the April 13, 2006 official action to our undersigned counsel’s deposit account 10-0435, with reference to matter 29920-75460. A duplicate copy of this authorization is enclosed for that purpose.

Respectfully submitted,



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